IN THE CLAIMS

Please amend the claims as follows:

Claims 1-11 (Canceled).

Claim 12 (New): A process for preparing an oxirane by reacting an organic compound with a hydroperoxide in the presence of a solvent and a catalyst, which comprises:

(i) reacting the hydroperoxide with the organic compound to give a product mixture comprising a reacted organic compound and an unreacted hydroperoxide,

(ii) separating the unreacted hydroperoxide from the product mixture resulting from step (i), and

(iii) reacting the unreacted hydroperoxide which has been separated off in step (ii) with the organic compound,

wherein the reaction in the steps (i) and (iii) is carried out in two separate reactors and the reaction in step (iii) is carried out in an adiabatic tube reactor which has at least two feed points for a reaction mixture comprising at least the organic compound, the hydroperoxide and the solvent, or at least two outlets for the product mixture, or at least two feed points and at least two outlets, wherein at least one feed point is located at the bottom of the reactor, at least one outlet is located at the top of the reactor, and at least one feed point or outlet or feed point and outlet is/are located at the side of the reactor.

Claim 13 (New): The process as claimed in claim 12, wherein an isothermal fixed-bed reactor is used in step (i) and a fixed-bed reactor is used as tube reactor in step (iii).

Claim 14 (New): The process as claimed in claim 12, wherein the tube reactor has at least one of the features:

(a) the longitudinal axis of the tube reactor is arranged vertically,

(e) the number of feed points is not more than 10, and

(f) the number of outlets is not more than 10.

Claim 15 (New): The process as claimed in claim 12, wherein the reaction mixture is fed into the tube reactor simultaneously via all feed points.

Claim 16 (New): The process as claimed in claim 12, wherein the reaction mixture is fed into the tube reactor exclusively via the uppermost feed point and after the hydroperoxide conversion has dropped to a predefined threshold value, the reaction mixture is fed in via the next lower feed point.

Claim 17 (New): The process as claimed in claim 12, wherein the product mixture is taken from the tube reactor exclusively via the bottommost outlet and when the hydroperoxide conversion has dropped to a previously defined threshold value, the product mixture is taken off via the next higher outlet.

Claim 18 (New): The process as claimed in claim 12, wherein part of the reaction mixture or of the solvent is fed in simultaneously with the reaction mixture at the bottommost feed point of the tube reactor.

Claim 19 (New): The process as claimed in claim 12, wherein each feed point is provided with a device by means of which the reaction mixture is uniformly distributed over the entire cross section of the tube reactor.

Claim 20 (New): The process as claimed in claim 12, wherein the reaction mixture fed into the tube reactor has a pH of from 2 to 6 and a temperature of from 0 to 120°C and the pressure in the tube reactor is from 1 to 100 bar.

Claim 21 (New): The process as claimed in claim 12, wherein propylene is used as the organic compound, hydrogen peroxide is used as the hydroperoxide, the oxirane is propylene oxide and the reaction is carried out in methanol as the solvent over a heterogeneous catalyst comprising a zeolite.

Claim 22 (New): The process as claimed in claim 21, wherein the zeolite is TS-1.

Claim 23 (New): The process as claimed in claim 21, wherein an isothermal fixed-bed reactor is used in step (i) and a fixed-bed reactor is used as tube reactor in step (iii),

wherein the tube reactor has at least one of the features:

(a) the longitudinal axis of the tube reactor is arranged vertically,

(e) the number of feed points is not more than 10, and

(f) the number of outlets is not more than 10,

and wherein the reaction mixture fed into the tube reactor has a pH of from 2 to 6 and a temperature of from 0 to 120°C and the pressure in the tube reactor is from 1 to 100 bar.

Claim 24 (New): The process as claimed in claim 21, wherein the reaction mixture is fed into the tube reactor simultaneously via all feed points.

Claim 25 (New): The process as claimed in claim 21, wherein the reaction mixture is fed into the tube reactor exclusively via the uppermost feed point and after the hydroperoxide

conversion has dropped to a predefined threshold value, the reaction mixture is fed in via the next lower feed point.

Claim 26 (New): The process as claimed in claim 21, wherein the product mixture is taken from the tube reactor exclusively via the bottommost outlet and when the hydroperoxide conversion has dropped to a previously defined threshold value, the product mixture is taken off via the next higher outlet.

Claim 27 (New): The process as claimed in claim 21, wherein part of the reaction mixture or of the solvent is fed in simultaneously with the reaction mixture at the bottommost feed point of the tube reactor.

Claim 28 (New): The process as claimed in claim 21, wherein each feed point is provided with a device by means of which the reaction mixture is uniformly distributed over the entire cross section of the tube reactor.

Claim 29 (New): A process for preparing an oxirane by reacting an organic compound with a hydroperoxide in the presence of a solvent and a catalyst, which comprises:

(i) reacting the hydroperoxide with the organic compound to give a product mixture comprising a reacted organic compound and an unreacted hydroperoxide,

(ii) separating the unreacted hydroperoxide from the product mixture resulting from step (i),

(iii) reacting the unreacted hydroperoxide which has been separated off in step (ii) with the organic compound,

wherein the reaction in the steps (i) and (iii) is carried out in two separate reactors and the reaction in step (iii) is carried out in an adiabatic tube reactor which has at least two feed points for a reaction mixture comprising at least the organic compound, the hydroperoxide and the solvent, or at least two outlets for the product mixture, or at least two feed points and at least two outlets, wherein at least one feed point is located at the bottom of the reactor, at least one outlet is located at the top of the reactor, and at least one feed point or outlet or feed point and outlet is/are located at the side of the reactor,

and wherein propylene is used as the organic compound, hydrogen peroxide is used as the hydroperoxide, the oxirane is propylene oxide and the reaction is carried out in methanol as the solvent over a heterogeneous catalyst comprising a zeolite, and wherein the zeolite is TS-1,

and wherein the reaction mixture fed into the tube reactor has a pH of from 2 to 6 and a temperature of from 0 to 120°C and the pressure in the tube reactor is from 1 to 100 bar.

Claim 30 (New): The process as claimed in claim 29, wherein an isothermal fixed-bed reactor is used in step (i) and a fixed-bed reactor is used as tube reactor in step (iii).

Claim 31 (New): The process as claimed in claim 29, wherein the tube reactor has at least one of the features:

(a) the longitudinal axis of the tube reactor is arranged vertically,

(e) the number of feed points is not more than 10, and

(f) the number of outlets is not more than 10.